

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-11. (Canceled)

12. (Currently Amended) ~~The system of claim 11~~ A micromachined filter system, comprising:

_____ a micro-device having a plurality of micromachined layers formed over a substrate; and

_____ a micromachined filter integrated in at least one of the micromachined layers,

wherein each layer that comprises the micromachined filter ~~comprises~~ consists of a series of substantially parallel beams.

13. (Currently Amended) ~~The system of claim 11~~ A micromachined filter system, comprising:

_____ a micro-device having a plurality of micromachined layers formed over a substrate; and

_____ a micromachined filter integrated in at least one of the micromachined layers,

wherein each layer that comprises the micromachined filter ~~comprises~~ consists of a series of substantially parallel columns.

14. (Currently Amended) The system of claim ~~11~~ 12, wherein the micromachined filter comprises:

_____ a first series of substantially parallel beams formed in a first micromachined layer; and

_____ a second series of substantially parallel beams formed in a second micromachined layer, the first and second series of beams being substantially parallel and at least partially offset to one another.

15. (Currently Amended) The system of claim ~~11~~ 12, wherein the micromachined filter comprises:

a first series of substantially parallel beams formed in a first micromachined layer; and

a second series of substantially parallel beams formed in a second micromachined layer, the first and second series of beams ~~being extending in non-parallel directions with respect~~ to one another.

16-18. (Canceled)

19. (Currently Amended) ~~The filter of claim 18~~ A filter comprising a micromachined layer of polysilicon, wherein the micromachined layer of polysilicon ~~comprises~~ consists of a series of substantially parallel beams.

20. (Currently Amended) ~~The filter of claim 18~~ A filter comprising a micromachined layer of polysilicon, wherein the micromachined layer of polysilicon ~~comprises~~ consists of a series of substantially parallel columns.

21. (Currently Amended) The filter of claim ~~18~~ 19, wherein the micromachined layer of polysilicon comprises:

a first series of substantially parallel beams formed in a first micromachined layer; and

a second series of substantially parallel beams formed in a second micromachined layer, the first and second series of beams being substantially parallel and at least partially offset to one another.

22. (Currently Amended) The filter of claim ~~18~~ 19, wherein the micromachined layer of polysilicon comprises:

a first series of substantially parallel beams formed in a first micromachined layer; and

a second series of substantially parallel beams formed in a second micromachined layer, the first and second series of beams ~~being extending in~~ non-parallel directions with respect to one another.

23-32. (Canceled)

33. (New) The system of claim 14, wherein the first and second micromachined layers are micromachined polysilicon layers.

34. (New) The system of claim 15, wherein the first and second micromachined layers are micromachined polysilicon layers.

35. (New) The filter of claim 21, wherein the first and second micromachined layers are micromachined polysilicon layers.

36. (New) The filter of claim 22, wherein the first and second micromachined layers are micromachined polysilicon layers.

37. (New) The system of claim 12, wherein the at least one of the micromachined layers is a micromachined polysilicon layer.

38. (New) The system of claim 13, wherein the at least one of the micromachined layers is a micromachined polysilicon layer.

39. (New) The system of claim 12, wherein each of the beams has a width of at least about 1 micron.

40. (New) The filter of claim 19, wherein each of the beams has a width of at least about 1 micron.

41. (New) The system of claim 12, wherein the micro-device has a fluid inlet through the substrate and the micromachined filter is situated downstream of the fluid inlet.

42. (New) The system of claim 13, wherein the micro-device has a fluid inlet through the substrate and the micromachined filter is situated downstream of the fluid inlet.

43. (New) The system of claim 41, wherein the micromachined filter is situated over the fluid inlet.

44. (New) The system of claim 42, wherein the micromachined filter is situated over the fluid inlet.